UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/405,089	09/27/1999	SHIGEKAZU INOHARA	520.37631X00	9109

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EXAMINER
NGUYEN, VAN H

ART UNIT	PAPER NUMBER
2126	

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

Office Action Summary	Application No. 09/405,089	Applicant(s) INOHARA ET AL.
	Examiner VAN H. NGUYEN	Art Unit 2126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ___3___ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Sep 27, 1999* _____ .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-32* _____ is/are pending in the application.

    4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-9, 21, and 23-26* _____ is/are rejected.

7) ☒ Claim(s) *10-20, 22, and 27-32* _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All b) ☐ Some* c) ☐ None of:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    *See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _7_

4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

1.   This Office Action is in response to application filed on September 27, 1999. Claims 1-32

are presented for examination.

Claim Objections

2.   Claims 11-20, 22, and 28-29 are objected to under 37 CFR 1.75© as being in improper

form because a multiple dependent claim cannot depend from any other multiple dependent claim.

See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> > (e) the invention was described in a patent granted on an application for patent by another filed in the
> > United States before the invention thereof by the applicant for patent, or on an international
> > application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section
> > 371(c) of this title before the invention thereof by the applicant for patent.
>
> > The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act
> > of 1999 (AIPA) do not apply to the examination of this application as the

application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-9, 21, 23-26 are rejected under 35 U.S.C. 102 (e) as being anticipated by

Vasudevan et al (U.S. 5,887,172).

As to claim 1, Vasudevan teaches (col.6, line 17-col.7, line 54) a remote procedure call optimizing method for optimizing remote procedure calls (remote procedure calls) between a server object (the server) offering at least one remote procedure on the one hand, and a client object (the client) carrying out processing by use of an RPC calling said at least one remote procedure on the other hand on a computer for executing at least either one program or one program part, said remote procedure call optimizing method being characterized by the steps of:

- adding to said server a new remote procedure integrating a plurality of RPCs constituting a processing part of said client into a smaller number of RPCs to be executed, as well as an interface of said new remote procedure (col.6, lines 7-26); and

- allowing said client to call the newly added remote procedure to carry out said processing part comprising said smaller number of RPCs (col.7, lines 13-54).

As to claim 2, the rejection of claim 1 above is incorporated herein in full. However, claim 2 further recites "analyzing a source code of said client so as to detect a remote procedure execution sequence constituting a set of RPCs that are highly likely to be executed successively."

Vasudevan teaches analyzing a source code of said client so as to detect a remote procedure execution sequence constituting a set of RPCs that are highly likely to be executed successively (col.6, line 29-col.7, line 32).

As to claim 3, Vasudevan teaches (col.6, line 17-col.7, line 54) a remote procedure call optimizing method for optimizing RPCs (remote procedure calls) between a serve (the server) offering at least one remote procedure, and a client (the client) carrying out processing by use of an RPC calling said at least one remote procedure, on a computer for executing at least either one program or one program part, when an IDL description (IDL language) for said at least one remote procedure is provided, said remote procedure call optimizing method being characterized by the steps of:

- analyzing a source code of said client so as to detect a remote procedure execution sequence constituting an array of RPCs that are highly likely to be executed successively (col.6, line 29-col.7, line 32);

- determining a new remote procedure for executing said remote procedure execution sequence in a single RPC (col.6, lines 7-26); and

- additionally storing an interface of the determined remote procedure into said IDL description (col.6, line 42-col.7, line 12).

As to claim 4, Vasudevan teaches (col.6, line 17-col.7, line 54) a remote procedure call optimizing method for optimizing RPCs (remote procedure calls) between a server (the server) offering at least one remote procedure, and a client (the client) carrying out processing by use of

an RPC calling said at least one remote procedure, on a computer for executing at least either one

program or one program part, when an IDL description (IDL language) for said at least one

remote procedure is provided, said remote procedure call optimizing method being characterized

by the steps of:

  - inputting a source code and an IDL description of said client (col. 6, lines 42-58);

  - generating a first remote procedure comprising a plurality of RPCs included in the input

client source code, and an IDL description of said first remote procedure (col.6, line 54-col.8, line

55); and

  - outputting a source code of the generated first remote procedure, said IDL description

of said generated first remote procedure, and a new client source code including a call to said

generated first remote procedure (col.6, line 54-col.8, line 55).

  As to claim 5, the rejection of claim 4 above is incorporated herein in full. However,

claim 5 further recites "inputting a source code of the server."

  Vasudevan teaches inputting a source code of the server (col. 6, lines 42-58).

  As to claim 6, the rejection of claim 4 above is incorporated herein in full. However,

claim 6 further recites "inputting an object of the server."

  Vasudevan teaches inputting an object of the server (col. 5, lines 4-24).

  Claim 7 includes the same limitations as claim 5, and is similarly rejected under the same

rationale.

As to claim 8, the rejection of claim 4 above is incorporated herein in full. However, claim 5 further recites:

- analyzing flows of data in the client source code to detect an RPC string that may be integrated; and

- adding an interface of said RPC string to said IDL description.

Vasudevan teaches:

- analyzing flows of data in the client source code to detect an RPC string that may be integrated (col.6, line 29-col.7, line 32); and

- adding an interface of said RPC string to said IDL description (col.6, line 42-col.7, line 54.

As to claim 9, Vasudevan teaches acquiring said IDL description by: reading an IDL source file storing said IDL description; communicating with said server; referring to a file of said server; or communicating with an interface repository providing said IDL description (col.7, lines 42-67).

As to claim 21, Vasudevan teaches said server includes an extensible dispatcher for accepting new remote procedures that are added, said extensible dispatcher apportioning calls to said at least one remote procedure (col.6, lines 17-26).

As to claim 23, Vasudevan teaches a program execution method combining at least two of a program for executing a remote procedure call optimizing method according to any one of

claims 1 through 8; an IDL compiler for converting an IDL description into a source code for

carrying out RPCs of a server and a client; and a compiler for converting said source code to an

executable code (col.6, line 37-col.7, line 54).

As to claim 24, Vasudevan teaches A CORBA IDL compiler, a Sun RPC stub generator,

a Java IDL compiler, or a Java RMI compiler incorporating a program for executing a remote

procedure call optimizing method according to any one of claims 1 through 8 (col.6, lines 42-53).

As to claim 25, Vasudevan teaches a program execution method for utilizing a program

for executing a remote procedure call optimizing method according to any one of claims 1

through 8, as a preprocessing program for: a CORBA IDL compiler or a Sun RPC stub

generator; or at least one of a Java IDL compiler and a Java RMI compiler (col.6, lines 42-53).

As to claim 26, "a storage medium accommodating a computer program for causing a

computer to carry out a program for executing a remote procedure call optimizing method

according to any one of claims 1 through 8" is inherent to the system of Vasudevan.

Allowable Subject Matter

4.   Claims 10, 27, and 30-32 are objected to as being dependent upon a rejected base claim,

but would be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

-Juster (US 6202089) teaches "Method for configuring at runtime, identifying and using a

plurality of remote procedure call endpoints on a single server process."

-Aman et al. (US 6067580) teaches "Integrating distributed computing environment

remote procedure calls with an advisory work load manager."

-Meier (US 5970248) teaches "Method of walking-up a call stack for a client/server

program that uses remote procedure call."

- Lam et al. (US 5926636) teaches "Remote procedural call component management

method for a heterogeneous computer network."

-Meier (US 5794047) teaches "Method of walking-up a call stack for a client/server

program that uses remote procedure call."

-Wei (US 5778228) teaches "Method and system for transferring remote procedure calls

and responses over a network."

- Hill et al. (US 5724588) teaches "Method and system for network marshalling of

interface pointers for remote procedure calls."

-Kapoor et al. (US 5682534) teaches "Transparent local RPC optimization."

-Schreiber et al. (US 5430876) teaches "Remote procedure callback system and method ."

-Davidson et al. (US 5307490) teaches "Method and system for implementing remote

procedure calls in a distributed computer system."

-Schroeder et al. "Performance of firefly RPC" Digital Equipment Corporation 1989,

pages 1-15.

5.   Any inquiry concerning this communication or earlier communications from the examiner

should be directed to VAN H NGUYEN whose telephone number is (703) 306-5971. The

examiner can normally be reached on Monday-Thursday from 8:30AM - 6:00PM. The examiner

can also be reached on alternative Friday.

        Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 305-9000.

Any response to this action should be mailed to:
Commissioner of Patents and Trademark
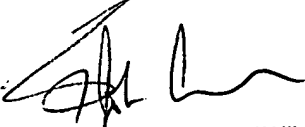Washington, DC 20231
or fax to:
(703) 746-7239 (for formal communications intended for entry)
(703) 746-7238 (for After Final communications)
(703) 746-7140 (for informal or draft communications

VHN
05/28/03

ST. JOHN COURTENAY III
PRIMARY EXAMINER